What Is Claimed Is:

1. A power amplifier, comprising:

a first amplifier connected to a first power;

a second amplifier connected to a second power;

a common input impedance matching unit impedance matching inputted signals and outputting the inputted signals to the first amplifier and the second amplifier;

a common output impedance matching unit impedance matching and outputting the signals amplified from the first amplifier and the second amplifier;

an output impedance matching unit electrically connected between the first amplifier and the common output impedance matching unit, and modifying an output voltage value of the first amplifier to an output voltage value of the second amplifier; and

an input impedance matching unit electrically connected between the common input impedance matching unit and the first amplifier, and compensating a phase shift occurring during the voltage modification of the output impedance matching unit.

2. The power amplifier according to claim 1, wherein the second power connected to the second amplifier is switched by a switch and provides an electric current to the second amplifier.

3. The power amplifier according to claim 1, wherein the first amplifier is a low power amplifier, and the second amplifier is a high power amplifier.

4. The power amplifier according to claim 1, wherein the first and second amplifiers are formed of a hetero junction bipolar transistor array, and each of the first and second powers is an electric current source.

5. The power amplifier according to claim 1, wherein the first and second amplifiers are formed of a field effect transistor array, and each of the first and second powers is a voltage source.

6. The power amplifier according to claim 1, wherein the output impedance matching unit is a low pass type impedance matching circuit having a negative phase shift ($-\Phi$), and the input impedance matching unit is a high pass type impedance matching circuit having a positive phase shift ($+\Phi$).

7. The power amplifier according to claim 6, wherein the output impedance matching unit comprises:

an inductor connected in series between the first amplifier and the common output impedance matching unit; and

a capacitor connected between a node and a ground terminal, the node being formed between the first amplifier and the inductor.

8. The power amplifier according to claim 6, wherein the input impedance matching unit comprises:

a capacitor and a resistance connected in series between the common input impedance matching unit and the first amplifier; and

an inductor connected between a node and a ground terminal, the node being formed between the capacitor and the resistance.

9. The power amplifier according to claim 1, wherein the output impedance matching unit is a high pass type impedance matching circuit having a positive phase shift (+Φ), and the input impedance matching unit is a low pass type impedance matching circuit having a negative phase shift (-Φ).

10. The power amplifier according to claim 9, wherein the output impedance matching unit comprises:

a capacitor connected in series between the first amplifier and the common output impedance matching unit; and

an inductor connected between a node and a ground terminal, the node being formed between the first amplifier and the inductor.

11. The power amplifier according to claim 9, wherein the input impedance matching unit comprises:

an inductor and a resistance connected in series between the common input impedance matching unit and the first amplifier; and

a capacitor connected between a node and a ground terminal, the node being formed between the inductor and the resistance.

12. A power amplifier, comprising:

a low power amplifier connected to a first power;

a high power amplifier connected to a second power being switched by a switch;

a common input impedance matching unit impedance matching inputted signals and outputting the inputted signals to the low power amplifier and the high power amplifier;

a common output impedance matching unit impedance matching and outputting the signals amplified from the low power amplifier and the high power amplifier;

a low pass type output impedance matching unit electrically connected between the low power amplifier and the common output impedance matching unit, and having a negative phase shift ($-\Phi$) so as to modify an output voltage value of the low power amplifier to an output voltage value of the high power amplifier; and

a high pass type output impedance matching unit electrically connected between the common input impedance matching unit and the low power amplifier, and having a positive phase shift ($+\Phi$) so as to compensate a phase shift occurring during the voltage modification of the output impedance matching unit.

13. The power amplifier according to claim 12, wherein the low power amplifier and the high power amplifier are formed of a hetero junction bipolar transistor array, and each of the first and second powers is an electric current source.

14. The power amplifier according to claim 12, wherein the low power amplifier and the high power amplifier are formed of a field effect transistor array, and each of the first and second powers is a voltage source.

15. The power amplifier according to claim 12, wherein the output impedance matching unit comprises:

an inductor connected in series between the low power amplifier and the common output impedance matching unit; and

a capacitor connected between a node and a ground terminal, the node being formed between the low power amplifier and the inductor.

16. The power amplifier according to claim 12, wherein the input impedance matching unit comprises:

a capacitor and a resistance connected in series between the common input impedance matching unit and the low power amplifier; and

an inductor connected between a node and a ground terminal, the node being formed between the capacitor and the resistance.

17. A power amplifier, comprising:

a low power amplifier connected to a first power;

a high power amplifier connected to a second power being switched by a switch;

a common input impedance matching unit impedance matching inputted signals and outputting the inputted signals to the low power amplifier and the high power amplifier;

a common output impedance matching unit impedance matching and outputting the signals amplified from the low power amplifier and the high power amplifier;

a high pass type output impedance matching unit electrically connected between the low power amplifier and the common output impedance matching unit, and having a positive phase shift (+Φ) so as to modify an output voltage value of the low power amplifier to an output voltage value of the high power amplifier; and

a low pass type input impedance matching unit electrically connected between the common input impedance matching unit and the low power amplifier, and having a negative phase shift (-Φ) so as to compensate a phase shift occurring during the voltage modification of the output impedance matching unit.

18. The power amplifier according to claim 17, wherein the output impedance matching unit comprises:

a capacitor connected in series between the low power amplifier and the common output impedance matching units; and

an inductor connected between a node and a ground terminal, the node being formed between the low power amplifier and the inductor.

19. The power amplifier according to claim 17, wherein the input impedance matching unit comprises:

an inductor and a resistance connected in series between the common input impedance matching unit and the low power amplifier; and

a capacitor connected between a node and a ground terminal, the node being formed between the inductor and the resistance.